## **ABSTRACT**

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An intermediate network element deployed in a content delivery network is disclosed. The content delivery network cooperates its content delivery effort with other intermediate network element with similar capabilities. Distributing rules govern the operations of the intermediate network element(s) are presented. These include the framework of the intermediate network element(s), the format of indicating part or whole of a rule specification to be distributed, the format of signatures for intermediate network elements to discover each other, the format of signaling other intermediate network elements that a rule is distributed to, and the method of determining the intermediate network element to distribute a rule to. In addition, authoring rules that are specific to real time streaming of contents are disclosed. A set of rule evaluation conditions are revealed that can be triggered based on different criteria during the streaming of real time contents. A set of parameters from which rules can be based on is disclosed.